

AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (Previously presented) A method for the fermentative production of L-methionine, which comprises the following steps:

a) fermenting in a medium cells of a coryneform bacterium for producing L-methionine, the coryneform bacteria expressing at least one heterologous nucleotide sequence which codes for a protein with O-acetylhomoserine sulfhyrolase (metY) activity, wherein the heterologous nucleotide sequence comprises a nucleotide sequence encoding a metY protein having an amino acid sequence as set forth in SEQ ID NO: 4 or comprises a nucleotide sequence encoding a metY protein having an amino acid sequence with 95% homology or more to the sequence as set forth in SEQ ID NO: 4;

b) concentrating L-methionine in the medium or in the bacterial cells, and

c) isolating L-methionine.

2-4. (Cancelled).

5. (Previously presented) The method as claimed in claim 1, wherein the metY-encoding nucleotide sequence comprises a coding sequence as set forth in SEQ ID NO: 3.

6. (Previously presented) The method as claimed in claim 1, wherein the metY-encoding sequence codes for a protein with metY activity, the protein comprising an amino acid sequence as set forth in SEQ ID NO: 4.

7. (Previously presented) The method as claimed in claim 1, wherein the coding metY sequence is a DNA or RNA which can be replicated in coryneform bacteria or is stably integrated into the chromosome.

8. (Currently amended) The method as claimed in claim 7, wherein the bacteria is
- a bacteria strain transformed with a plasmid vector carrying at least one copy of the coding metY sequence under the control of regulatory sequences ~~is used~~, or
 - a strain in which the coding metY sequence has been integrated into the bacteria chromosome ~~is used~~.
9. (Previously presented) The method as claimed in claim 1, wherein the coding metY sequence is overexpressed.
10. (Previously presented) The method as claimed in claim 1, wherein the bacteria are fermented in which additionally at least one further gene of the biosynthetic pathway of L-methionine has been overexpressed.
11. (Cancelled).
12. (Previously presented) The method as claimed in claim 1, wherein the coryneform bacteria are fermented in which, at the same time, at least one of the genes selected from among
- the gene lysC, which encodes an aspartate kinase,
 - the glyceraldehyde-3-phosphate dehydrogenase-encoding gene gap,
 - the 3-phosphoglycerate kinase-encoding gene pgk,
 - the pyruvate carboxylase-encoding gene pyc,
 - the triose phosphate isomerase-encoding gene tpi,
 - the homoserine O-acetyltransferase-encoding gene metA,
 - the cystathionine gamma-synthase-encoding gene metB,
 - the cystathionine gamma-lyase-encoding gene metC,
 - serine hydroxymethyltransferase-encoding gene glyA,
 - the methylene tetrahydrofolate reductase-encoding gene metF,
 - the vitamin B12-dependent methionine synthase-encoding gene metH,
 - the phosphoserine aminotransferase-encoding gene serC,
 - the phosphoserine phosphatase-encoding gene serB,

- n) the serine acetyltransferase-encoding gene *cysE*, and
- o) the gene *hom*, which encodes a homoserine dehydrogenase, is overexpressed.

13. (Previously presented) The method as claimed in claim 1, wherein the coryneform bacteria are fermented in which, at the same time, at least one of the genes selected from among

- a) the homoserine kinase-encoding gene *thrB*,
- b) the threonine dehydratase-encoding gene *ilvA*,
- c) the threonine synthase-encoding gene *thrC*,
- d) the meso-diaminopimelate D-dehydrogenase-encoding gene *ddh*,
- e) the phosphoenolpyruvate carboxykinase-encoding gene *pck*,
- f) the glucose-6-phosphate 6-isomerase-encoding gene *pgi*,
- g) the pyruvate oxidase-encoding gene *poxB*,
- h) the dihydrodipicolinate synthase-encoding gene *dapA*,
- i) the dihydrodipicolinate reductase-encoding gene *dapB*; and
- j) the diaminopicolinate decarboxylase-encoding gene,

is attenuated by changing the rate of expression.

14. (Previously presented) The method as claimed in claim 1, wherein the coryneform bacterium is of the species *Corynebacterium glutamicum*.

15. (Previously presented) A method for producing an L-methionine-containing animal feed additive from fermentation broths, which comprises the following steps:

- a) culturing and fermenting L-methionine-producing cells of a coryneform bacterium in a fermentation medium;
 - b) removing water from the L-methionine-containing fermentation broth;
 - c) removing from 0 to 100% by weight of the biomass formed during fermentation;
- and
- d) drying the fermentation broth obtained according to b) and/or c), in order to obtain the animal feed additive in the desired powder or granule form;

wherein the coryneform bacteria express at least one heterologous nucleotide sequence which codes for a protein with O-acetylhomoserine sulphydrolase (metY) activity, where the heterologous nucleotide sequence comprises a nucleotide sequence encoding a metY protein having an amino acid sequence as set forth in SEQ ID NO: 4 or comprises a nucleotide sequence encoding a metY protein having an amino acid sequence with 95% homology or more to the sequence as set forth in SEQ ID NO: 4.

16. (Cancelled).

17. (Previously presented) The method of claim 1, wherein the metY-encoding sequence is derived from *Mycobacterium tuberculosis*.

18. (Previously presented) The method of claim 1, wherein the coryneform bacteria are fermented in which, at the same time, a gene lysC derived from a coryneform bacteria, which encodes an aspartate kinase, is overexpressed.

19. (Previously presented) The method of claim 18, wherein the lysC gene is derived from *Corynebacterium glutamicum*.

20. (Previously presented) A method for the production of L-methionine, which comprises the following steps:

- a) fermenting in a medium cells of a coryneform bacterium for producing of L-methionine, the coryneform bacteria expressing at least one heterologous nucleotide sequence which codes for a protein with O-acetylhomoserine sulphydrolase (metY) activity, wherein the heterologous nucleotide sequence comprises a nucleotide sequence having 95% identity or more to the sequence as set forth in SEQ ID NO: 3;
- b) concentrating L-methionine in the medium or in the bacterial cells; and
- c) isolating L-methionine.

21. (Previously presented) The method of claim 20, wherein the coding metY sequence is a DNA or RNA which can be replicated in coryneform bacteria or is stably integrated into the chromosome.
22. (Previously presented) The method of claim 20, wherein
- a) a bacteria strain transformed with a plasmid vector carrying at least one copy of the coding metY sequence under the control of regulatory sequences is used, or
 - b) a strain in which the coding metY sequence has been integrated into the bacteria chromosome is used.
23. (Previously presented) The method of claim 20, wherein the coding metY sequence is overexpressed.
24. (Previously presented) The method of claim 20, wherein the coryneform bacterium is of the species *Corynebacterium glutamicum*.
25. (Previously presented) The method of claim 20, wherein bacteria are fermented in which additionally at least one further gene of the biosynthetic pathway of L-methionine is overexpressed.
26. (Previously presented) The method of claim 25, wherein the at least one further gene is a gene lysC derived from a coryneform bacteria, which encodes an aspartate kinase.